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Does Education Abroad Help to Alleviate Poverty at Home? An Assessment

CHRISTOPHER COLCLOUGH

Flows of students abroad are increasing rapidly, encouraged by globalisation pressures, by declining quality of university provision in some of the poorest states and by the income needs of northern universities. Students from developing countries are increasingly self-financed, from middle-income countries and from richer families across all countries. The paper argues that both the direct and indirect impacts of these trends on poverty in sending states are likely to be negative. Some increased influence on home policy-formation by the overseas Indian and Chinese diaspora, and increased flows of return migrants to high-growth states in response to targeted recruitment incentives, provide evidence for countervailing tendencies. But for most developing countries, where economic growth is less dynamic, net benefits of international education for poverty alleviation remain unrealised.

INTRODUCTION

The number of students studying abroad has, in recent years, been growing very rapidly, encouraged by globalising tendencies in education and by aggressive marketing by universities in the industrialised world. This paper addresses the question as to whether the scale and nature of international student flows helps or hinders the alleviation of poverty worldwide. It begins by summarising the main ways in which education policy internationally is attempting to address the poverty agenda—and the theoretical basis for these emphases. It examines the causes of the recent rapid increase in international student flows, and describes its changing characteristics. It identifies the benefits and costs of this system of international education, particularly for poor people in poor countries, and concludes with an assessment of its general impact on poverty.

EDUCATION AND POVERTY: THEORY AND EXPERIENCE

In recent years aid agencies and national governments in developing countries have increasingly emphasised poverty alleviation as the overriding objective of development policy. A set of eight 'Millennium Development Goals' (MDGs) have

Christopher Colclough is Professor of the Economics of Education, and Director of the Centre for Commonwealth Education at the University of Cambridge.

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been promulgated by the international community, the achievement of which would, it is believed, halve the incidence of poverty over the years to 2015.[1] Education features centrally amongst these goals, in that the achievement of universal primary education, and of gender parity in enrolments across all levels of education comprise two of them. In the Dakar Framework for Action[2] promulgated by the international community in the same year as the Millennium Declaration, education commitments were further extended to halving illiteracy, enhancing early childhood education and programmes for out of school youth, and improving the quality of education at all levels, by 2015.

Each of these objectives are centrally concerned with providing important basic skills—reading, writing, numeracy and reasoning ability—to all people. They are the minimum tools needed to operate in society. Without them, people cannot easily contribute to community life, nor benefit from it as much as they could and should. There is plenty of evidence to indicate that basic education being widely spread amongst the population is associated with better economic growth prospects [Barro (1999); Birdsall and Londono (1998)]. Across countries, it is the poorer group—particularly those in Africa and South Asia—which are still far from achieving universal primary schooling. Furthermore, if we consider the East Asian countries that have grown most rapidly over the past few decades, all of them (Hong Kong, Singapore, Korea, Malaysia, Thailand, Indonesia, and China) had given early priority to the expansion of primary schooling prior to their rapid growth phase, and to the expansion of secondary schooling subsequently.[3] At least for a manufacturing-based industrial growth strategy, the skills deriving from widely spread basic schooling seem to be important, and probably necessary, preconditions.

More fundamentally, for individuals, education provides one of the main ways to escape from poverty. Private returns to schooling are high for those who find a wage-earning job [Psacharopoulos and Patrinos (2002)]. For the rest, literacy and numeracy help the self-employed, including farmers, to increase their incomes. Better educated women have smaller and healthier families and better educated children [Schultz (1995)]. Thus, providing the poor with at least a minimum education represents a strongly targeted form of investment. These are the main reasons why universal primary education and gender parity are central to a strategy which aims to alleviate poverty in the poorest countries.[4]

The MDGs and the Dakar Goals are, however, silent about the need for the higher-level skills generated by education at the tertiary level. Does this imply that such investment is a low priority from the perspective of the alleviation of world

[1]See United Nations (2000).

[2]UNESCO (2000).

[3]Evidence is given in World Bank (1993) and Stewart (1996).

[4]For reviews of the relevant evidence and argument, see UNESCO (2002, 2003); Bruns, *et al.* (2003); Sen (1999).

poverty? If so, it may be that study abroad—which represents a rapidly growing part of global tertiary provision—is not particularly relevant to the overriding concerns of development policy.

The development goals privilege primary and basic education for a number of important reasons. Although the wage benefits of undertaking higher education are usually high, its returns to society appear to have been lower than those associated with primary schooling. This is partly because the unit costs of expanding tertiary systems are usually very large, and often between 20 and 50 times as great as those at primary level.[5] Accordingly public resources spent on the tertiary system carry a high opportunity cost in countries where not everyone has the chance of attending primary school. This judgement is strengthened by the fact that, in developing countries, those who succeed in staying on through primary and secondary education tend to be from richer families. Thus, enrolments at tertiary level are disproportionately from amongst those groups. In these circumstances, if we wish to use public funds for education to tackle poverty, it seems better to focus additional expenditures on primary and secondary schooling, leaving tertiary education to be provided by the market: richer families have more resources and better access to credit than the poor; by contrast, the negative impact of fees on primary enrolments is one of the clearest constraints to achieving universal enrolment that has emerged in recent years [UNESCO (2003), pp. 268-9]. So, because of rights, social returns, poverty, market imperfections and equity, it follows that public resources should first and foremost be targeted at the base of the system, to ensure that all eligible children find a place in school.

This strong statement does not, however, imply that tertiary education has no impact on poverty—far from it. Improving high-level skills in the population will help the poor indirectly via enhancing the prospects for economic growth, and directly to the extent that they themselves become tertiary graduates. Thus, if a sustained emphasis in public expenditure priorities on the primary level resulted in damage to tertiary education—e.g. by promoting falling enrolments or quality—the productive structure of the economy could be undermined. However, as a shortage of graduates emerged, the private and social returns to higher education would rise—such that eventually they would become competitive with those at primary level. The rising private benefits to be gained from higher education would be expected to increase private expenditures on tertiary enrolments, and the rising social returns would also generate the economic rationale for reallocation of public funds towards the top of the system.

That is the theory. The problem is that practice does not fit so closely with this model. Firstly, providing more space for market provision is often less pro-poor than providing state funding via a progressively financed tax base. Unless the system of financing tertiary education provides scholarships for those from poorer

[5]Evidence for African countries is given in Colclough, *et al.* (2003), Table 6.11.

backgrounds, the enrolment profile will become even more dominated by the richer groups than before. In these circumstances, the direct recipients of the benefits of higher education will be pretty much exclusively the sons and daughters of the rich.

Secondly, the experience of many of the poorest countries, where tertiary education is now in a much more parlous state than it was thirty years ago, demonstrates the crucial importance of sustaining public funding. In many of these cases, the difficulties have not generally been caused by a shift of public priorities away from tertiary towards emphasising basic education, but rather by a general under-funding of education in circumstances where government expenditure has had to be reduced—often severely—in real terms. In many African countries, tertiary systems have been in crisis in recent years.[6] Many campuses have libraries with few new books and journals, laboratories without the necessary equipment and seminar rooms with absent academics. This lack of resourcing causes the fabric and life of the enterprise to be undermined.

In most of these cases, the declining resources from the state have not elicited successful compensatory responses from the domestic market. Individuals cannot become founders of universities as easily as they can start schools. Although private universities have been appearing in many countries, including in Africa, these are often campus offshoots of foreign universities, and thus are in the domain of international education. In the absence of such initiatives, the only way for people to secure a good college or university education may be to study abroad, or to enrol in one of the distance learning courses offered by many open-university-type institutions.

In these circumstances, the growth of international education is a response to poverty. It increases as domestic alternatives become inadequate, and not simply because a new addition to the range of choices facing families in poorer countries has appeared. It succeeds because state providers in developing countries are failing. This is not necessarily the general case. However it is one important part of the picture, and Germane particularly to those African countries where international student flows have increased markedly in recent years.

INTERNATIONAL EDUCATION AND GLOBALISATION

An important part of the context for the recent acceleration in student and knowledge flows internationally is the phenomenon of ‘globalisation’. By this is meant the increasing capacity of major world industries to work as a unified production process on a global scale. For these industries, the physical location of a particular part of the production process is no longer constrained by the location of their other parts. The cost of production in particular locations thus exerts a major influence upon what, and where, products are produced. An illustration of this is given by an observation made by the founder of Psion computers:

[6]The general availability of higher education in Africa is also much lower than elsewhere. In much of the continent, enrolments cover only 5 percent of the age group or less. This compares with 10-40 percent in the Arab States, East Asia and Latin America, and with 40-70 percent in North America and Western Europe [UNESCO (2004), pp. 103-4].

> 'A global economy is one in which countries specialise to a greater extent in the area of their competitive advantage. Japan generates the knowledge of how to make a chip with even greater memory in a smaller device. The silicon is made in Osaka. It is transferred to Malaysia, where it is processed into a chip. It is tested in Ireland, It is sold to Dell in the United States who makes a computer which is used in Brazil…..Only fifty years ago, by contrast, a similar key component of the time, say an electric motor, would all have been made within twenty miles of Birmingham, England'. [Potter (2000).]

The speed of economic change has accelerated and economic power has become increasingly concentrated. By the early 1990s, multinational corporations, which directly employed around 70 million workers (around 2 percent of the world's labour force at that time) produced about one-third of the world's total exports.[7] The integration of a number of different markets has been crucial for globalisation's present pace. The world's financial markets are fully integrated. The stock, bond, futures, options and derivatives prices are available instantly throughout the world. The ability to transact business from these global sites follows from this. Foreign direct investment has grown rapidly but, by consequence, thirty percent of total trade value is accounted for by trade between branches of the same companies. Technology has been transformed by the electronics revolution. Communications difficulties are becoming non-existent as the world wires up. The costs of staying in constant touch have become tiny. It is as though, on different continents, we are all working in the next room.

Thirty years ago, much was written about the role of multi-national companies, their power and influence on development, and their consequential ability to constrain the activities of national governments. At that time, the dominant concern was that these commercial interests would subvert domestic policy-making in developing countries in ways which reflected the interests of northern capitalists, rather than national populations in developing countries. An extensive literature, in what came to be known as the 'dependency' tradition, pointed, *inter alia*, to the ways in which alliances between national élites and international capitalists, worked against the integrity of pro-poor policies being pursued in developing countries. More orthodox economists, on the other hand, stressed the benefits for developing countries of attracting inward investment, and emphasised the need to liberalise economies and to encourage a permissive trading environment, so as to maximise their attractions to international capital. The vocabulary of this debate has changed, but the main areas of contest about the gains and costs of globalisation are not dissimilar today.

As regards the impact of these changes, the world has emerged from the recessions of the 1970s and 80s, and has grown steadily, but at nothing near exponential rates. Economic progress has been selective, and Africa has been largely

[7]See Bailey, *et al.* (1993); UNDP (1999:31).

bypassed by this recovery. Meanwhile, there has been considerable polarisation of incomes in many countries, and growing gaps between living standards internationally. Trade has particularly helped those who were already rich: OECD countries still account for 74 percent of the world's exports, yet contain only 16 percent of the global population. The fruits of science and technology research and development are globally integrated, but their incidence is strongly concentrated in the richer countries of the world. Those who fully benefit remain a small part of the world's population, and much of Africa is actually poorer than it was ten years ago.

To what extent is international education a symptom of the same processes of polarisation, and to what extent is it, or can it be expected to be, a source of change and reform?

THE CHANGING NATURE OF STUDENT FLOWS

The extent of economic integration that is occurring clearly implies an acceleration of human movement—for travel, work, study and/or domicile—across borders. However, not everyone experiences the same freedoms. Highly skilled labour is in demand internationally, with the US, UK and other OECD countries depending on foreign labour in professional, technical and medical occupations. It is estimated, for example, that in 1998 more than 250 000 African professionals were working in the US.[8] Those with high qualifications are highly mobile. The unskilled, on the other hand, face tight restrictions on movement and immigration.

Increasingly, migrants with high qualifications have studied outside their own countries. Although estimates vary, it seems that more than 2 million students in higher education are presently studying outside their home country. About half of these are studying in the main English-speaking countries of USA (about 600 000), UK (about 300 000) and Australia, Canada and New Zealand (about 200 000 between them). As regards the non-English speaking countries, France hosts about 150 000 foreign students, Russia and Japan are also important destination countries and there are significant intra-European and intra-Asian flows [Bohm, *et al.* (2004), pp. 29-32; Stalker (2004)].

These student flows have been increasing rapidly, at around 6 percent per year over the past decade—a rate which implies a doubling every dozen years. They now account for more than 5 percent of US tertiary enrolments and for more than 10 percent of those in the UK. These proportions are likely to continue to increase over the next generation.

How are their characteristics changing? One important development is that the ways in which overseas study is typically financed have changed. The massification of higher education systems in richer countries has placed great strains on public budgets. Countries that historically had provided subsidised places for all

[8]UNDP (1999: 31).

who gained admission have shifted to financing methods that place most of the burden on the students (fees and loans being a preferred mechanism). Public funding of tertiary institutions has been reduced. Such institutions thus have great incentives to enhance their incomes, and the international recruitment of students is used by many of them as a necessary means of covering their costs. In these circumstances the motivation for welcoming students from overseas has shifted from an aid rationale to a profit-seeking one.[9]

Accordingly, by 2002-3 nearly two-thirds of foreign undergraduate students in UK were privately funded, and it appears that this was true of an even higher proportion of those undertaking taught post-graduate programmes. Although some 40 percent of research students receive some support by way of scholarships or fee-waivers from UK sources, these forms of support are usually partial, and the remaining majority of such students have to depend upon their own resources. Similar trends are apparent in USA. There, although around one fifth of foreign students succeed in gaining scholarship support from their US university, the proportion depending mainly upon their own financial resources, or those of their family, rose from 64 percent to 67 percent over the 1990s [Bohm (2004), p. 8 and 36].

Circumstances were different twenty years ago, when the majority of students coming to the UK from non-OECD sources had scholarship support under some form of aid arrangements. Partly by consequence of declining aid support, the patterns of migration for overseas study have changed sharply. Far fewer students now originate from the poorer countries of Africa and Asia than used to be the case: whereas the number of foreign students in UK higher education originating from countries which already had high levels of human development more than tripled between 1980 and 2002, those from countries with the lowest levels of human development (which are also usually the poorest) actually fell by 8 percent over that period[10] [Maxey (2003), Table 5.1]. Although total student flows were never particularly strongly poverty-focussed in a macro sense, the situation has deteriorated

[9]This is not true of all industrialised countries, some of which still have strong programmes of student aid. Japan, for example, pursued a goal of increasing the number of international students in national institutions from around 10 000 in the early 1980s to 100 000 by the end of the century. The government has provided generous incentives to overseas students, partly because of a strong belief that they play an important role in enriching academic life for all students [Tsuruta (2003); Umakoshi (1997)]. These incentives are counted as part of Japanese aid to education.

[10]The comparison in the source is between 'high human development' non-EU countries, as defined by the UNDP Human Development Report, and 'low human development' countries. Nevertheless, there is close correlation between these categories and the income groupings mentioned in the text. China is an important exception, being a low-income country which nevertheless has medium levels of human development. China presently accounts for about 5 percent of students studying overseas, but the proportion is set to increase rapidly over the next generation. This means that the proportion of international students from low income countries is likely to rise somewhat. Such students are, however, likely to be the sons and daughters of the richest families. Poverty within China will be affected only indirectly by these trends.

sharply: students from countries with the lowest levels of human development declined from over 12 percent of the total in 1980 to less than 4 percent of foreign higher education students in UK by 2002. And, since most of these students are now self-financed, it follows that most are from the higher income groups in the sending countries.

In summary, three generalisations emerge. First, international students are increasingly self-financed, rather than being supported by northern aid or southern governments. Secondly, student flows are increasingly dominated by people originating from middle-income countries. Thirdly, such students are increasingly from richer families, who can afford to pay fees set at market, rather than subsidised, rates.

As a result of these trends, over the past twenty years, education overseas has been confirmed as an activity enjoyed almost exclusively by people from richer households. What, then, are the implications of these trends for the distribution and alleviation of poverty in developing countries?

BENEFITS AND COSTS OF RETURNEES

The net benefits of foreign study for the home society are quite sensitive to whether or not the students return after qualifying. Where students do return for work or for further study in their home countries it seems clear that the impact of their experiences abroad are likely to be positive, not only for themselves but also for their society. The relevance of study abroad can of course be challenged—particularly for those from poorer nations who study in Europe or North America. Its cultural impact may be negative—global programmes may not be sensitive to local cultural traditions and realities, and may bring negative consequences on return. In addition, even if students return home after qualification, the frequency of migration amongst the most highly educated can undermine the viability of tertiary structures in the sending countries: domestic tertiary courses are robbed of their best students, and the incentives to build up good local institutional structures can actually become undermined.[11] Further, the expectations of students may be unrealistically enhanced by their foreign experience, in ways which create problems of readjustment to a more modest lifestyle, and a less cosmopolitan culture, than they experienced abroad.

However, on the whole, the potential benefits appear likely to outweigh these costs. In general, students who go abroad to study enhance the work and income opportunities they will face in their subsequent career. They gain qualifications which are often more marketable than those available from local universities and these advantages may be just as powerful at home as abroad. Returning Indian students find themselves more competitively placed for work in multinational

[11]See Faini (2003).

companies in India, than their colleagues who remained at home to study. Their international experience provides faster career advancement and higher salaries than their counterparts.

The broader social benefits brought to the home country by these returnees may also be significant. Studying abroad in leading international best-practice institutions could be expected to bring human capital benefits after students return. This should have a positive impact upon competitiveness and upon levels of domestic innovation in the sectors in which such graduates find work. Furthermore, studying alongside students from other nations broadens perspectives and encourages a spirit of multilateralism amongst graduates, with positive consequences for their societies. Even if those who go abroad to study are mainly from the richer groups, it can be argued that domestic development and growth will be enhanced on their return, and that thus, some pro-poor benefits will be gained.

BENEFITS AND COSTS OF NON-RETURNEES

Historically, large numbers of students who have travelled abroad for study at tertiary level have not returned home to work—at least not for some considerable time. These are people who have joined the 'brain drain', which has traditionally been judged to represent a significant net cost to their societies of origin. The most obvious set of costs concerns the loss of the accumulated public subsidies—particularly those for education and training—received by the students concerned prior to their departure abroad. The returns to these investments, in terms of enhanced economic growth, innovation and civil and political leadership are captured by the host society. Under these circumstances poor countries become donors to the rich, providing the latter with new talent and skills at no historic cost to their own societies. Although there are benefits to the sending countries, and to the families of migrants, from remittances, high levels of absenteeism bring social costs for the households concerned, particularly where there is prolonged absence of the main household income-earner. In the light of these arguments, it seems easy to conclude that non-returning students represent a sharp net cost to the societies from which they come, and that such outcomes are strongly against the interests of the poor.

PROSPECTS FOR CHANGE

It remains the case that a large number of students stay overseas after completing their studies. For example, in the USA, only half of the foreign students receiving a doctorate or a postdoctoral qualification are reported to return to their home country within two years of graduating [Stalker (2004)]. Other evidence suggests that this proportion remains relatively stable over the decade after graduation. Those most likely to stay abroad are those in scientific and technological

fields, those who have financed their studies themselves from jobs or from family resources, and those from East Asia, and particularly from South Asia, less than one-tenth of whom are reported to leave the USA to return to their home country [Gupta, *et al*. (2000)].

There are signs, however, that some countries are viewing their overseas residents as an asset to be tapped in support of domestic development. In the case of India, overseas education and migration has in recent years been strongly drawn from the country's 'elite groups' (in the sense not only of their previous education but also of their social standing). One indication of this is that Indians resident in the USA are almost twenty times more likely to be college-educated than Indians in India. This Indian non-resident 'diaspora' can be argued to have had a fundamental effect upon domestic ideas and policy over the past half-century [Kapur (2004)]. The inheritance of Tata, Gandhi, Nehru, Patel and Ambedkar—influenced as it was by their educational experiences in UK and US—was nourished by successive generations of fine minds who influenced Indian policy from abroad, or who returned to India after many years, subsequently to have great policy influence.

Although there are identifiable present benefits from this articulate group of non-resident Indians, there seems to be no significant change in the extent to which they intend to return home. Things appear to be changing, however, in other countries of the Pacific rim. As regards Taiwan, during the decades 1960-80, many students left to study in the USA. They were primarily self-financed and most of them subsequently stayed on to work. During the 1980s, however, many of these US-educated professionals returned home, drawn by active government recruitment, and by the opportunities created by rapid economic development. Many increasingly worked as so-called 'astronauts', shuttling between the US and Taiwan on a regular basis, being enabled, by professional contacts and language skills, to work in both countries easily [O'Neil (2003)]. These professionals became a ready source of technical knowledge, capital, contacts, and information about new markets and opportunities for Taiwan.

For China, the process has been similar. Although estimates vary, it seems that the number of Chinese returnees has been increasing rapidly in recent years as a direct result of government policy [Saxenian (2003)]. In view of the inevitably large gap in living and working conditions between China and OECD countries, the Chinese government has been pursuing two types of strategy to facilitate this process. First, substantial resources were devoted to promoting technical and business exchanges involving overseas Chinese students. Secondly, programmes were initiated to encourage ex-students to return, to use and profit from their entrepreneurship. Examples include 'venture parks' exclusively for enterprises run by returnees. They offer not only infrastructure and financial benefits, but also provide accelerated bureaucratic procedures for residency, access to schools and other services for their families, and a range of other incentives. These programmes

appear to be having some success. One wave of Chinese returnees from the US appeared in the mid-1990s—running Chinese branches of US-based firms or starting telecommunications and internet-related companies. A second, larger wave of returnees began in 2000, particularly as a result of substantial foreign investments in semiconductor manufacturing. Chinese employers see the returnees as prized catches, because they understand the western business model and may have contacts and networks in the West. Knowing also the institutional landscape and business atmosphere in China, they can straddle both cultures.

It could be that a new model of commuting is emerging—at least for a small but economically significant proportion of foreign technologists. As in the case of the Taiwanese mentioned earlier, Asian workers in the US Silicon Valley are reported to study and work there for a certain time, and then return to their home countries. A new type of 'circulating' immigration is appearing which brings back valuable experience and know-how to their home economies [Saxenian (2003)]. In this way the benefits of experience in both national domains brings benefits for the other.

CONCLUSIONS

The present system of international flows of students largely excludes the children of poor households from participation in it. This tendency has always been there, but it has been greatly strengthened in recent years both by the shift in aid policies away from providing scholarships for overseas study and by the simultaneous reductions in the public funding of universities and other tertiary institutions in UK and elsewhere. This has driven many rich-country universities to recruit aggressively on the international market. Such strategies are proving successful for them. However, although more and more students are being enrolled from developing countries, they are increasingly the progeny of richer households in middle-income countries. This system does not, therefore, directly benefit the poor.

In general, the system indirectly benefits the poor only to the extent that such students subsequently re-involve themselves with their home countries' economy or society. The great majority of foreign graduates have not returned home to work, and the majority of the present generation of students from developing countries appear not to intend to do so if they are given the chance to pursue their careers abroad. Again, the prospects that this system can help even indirectly to alleviate the circumstances of poor people appear limited.

However, as technology moves on, communications become easier and quicker, and the prospects for high level professionals having strong links in both their adoptive and home countries appear to be growing. The diaspora of non-resident Indians and Chinese—the two largest groups of developing country overseas graduates—may be able to bring increasing knowledge, advice and experience to benefit the development of their home countries, even if they continue to be based

abroad. Moreover, where developing countries begin to industrialise at a rapid rate, as in the cases of Taiwan and China, public policies to attract skilled citizens who are resident abroad back to their home countries appear to be much more successful than in the case of those countries which remain trapped in poverty. Thus, the skills of those overseas will be able to be harnassed more successfully when economic development has already begun to speed up. There are, then, some hopeful signs. Unfortunately, however, significant net benefits from this system remain unlikely for poorer households in the large number of developing countries where economic development remains a slow process, and where the gap between their incomes and those of the richer nations of the world continues to increase.

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Comments

Let me first thank to Pakistan Society of Development Economists for giving me this opportunity of being a discussant on this very important and thought provoking paper entitled Does Education Abroad Help to Alleviate Poverty at Home? The issue of education abroad has direct relevance with globalisation, skill development, brain drain, productivity and to poverty alleviation as well.

I agree with the three broad conclusions of the paper that, first given the changing nature of student flows, education abroad does not directly benefit the poor because these students are from richer families, who can afford to pay fee set at market rather than subsidised rates; second, the great majority of foreign graduates have not returned home to work so the prospects that this system can help even indirectly to alleviate poverty appear limited. Third, public policies of those countries where industrialisation is rapid have been more successful to attract their overseas skilled citizens to their home countries than in the case of those countries which remain trapped in poverty.

The first issue which deserves to be discussed is the low levels of return migration among the group of foreign students since, as the paper has noted, the net benefits of overseas education for the home society are quite sensitive to whether or not the students return after completing their education. Several well-documented factors at home as well as at the destination of these students contribute in this low level of return migration. The paper has shown that the most likely to stay abroad are those who have financed their studies themselves, and those from East Asia, and particularly from south Asia.

What is the role of the policies of foreign student receiving-countries in this low level of return migration? A great majority of these students is in USA, UK, Canada, Australia, New Zealand and France, and to some extent in Japan and Russia. USA, UK, and other OECD countries depend on foreign labour in professional, technical and medical occupations. For these countries, the foreign students are a major source of labour in these skilled occupations. According to some recent estimates, between 30 to 50 percent of the developing world's science and technology personal—now live in the developed world. Adjustment of visa status is common in these countries. In some years, for example, among immigrants admitted for permanent residence in the USA, more than a third had their status within the USA adjusted. It is therefore not difficult for the foreign students to change their status to become permanent residents after completing education. That seems to be one of the important reasons for increasing the share of non-returnees among the highly qualified migrants. The question is can the policies of student-receiving countries help the developing countries to get back their citizens when they complete

education? Australia, for example, has a policy of not changing the visa status of those foreign students who are financed by the Australian government on the nomination of their respective governments. Can this type of policy be extended to all foreign students, or it could be considered as a restriction on mobility for education abroad?

Another important issue is how to measure the contribution of overseas skilled workers in poverty alleviation at home. 'Brain drain', as the paper has discussed, can only tell part of the story about migration's overall impact on an economy or society. When all the other impacts of this movement of overseas students—such as—remittances, inward investment, technology transfer, increase trade flows and charitable activities—are taken into account, the net impact may actually be positive. For example, it is well established that migration of temporary contract workers, e.g. from South and South East Asia to the Middle Eastern countries, has positive impact on poverty reduction because migrants are largely from poor or middle income families, return migration rate is relatively high, upon return they usually settle in their original communities, they invest in labour-intensive sectors such as construction, and they transfer money to their needy relatives and friends. Some of these factors may also be true in the case of many, if not all, highly skilled workers in western countries. Three recent examples from Pakistan can explain it better. First, the flow of remittances from Pakistanis in the USA has recently increased considerably; many of them are professionals, and remittances have a profound impact on poverty reduction through several routs. Second, many highly skilled Pakistani workers in USA, UK and in other European countries may have invested in projects in their places of origin in Pakistan to transfer benefits to the poor. Contribution of these projects on poverty reduction has not been explored. Third, the type, nature and level of help received by the recent earthquake victims from Pakistani doctors living abroad is another example of their direct contribution towards the society at home. Moreover, the direct or indirect contribution of foreign qualified doctors since the 1960s in improving the overall health indicators of developing countries could be substantial. All these dimensions of migration point towards taking a rather comprehensive approach while looking at the contribution of highly skilled workers in poverty alleviation at home.

Distributional impact of education abroad is important as well. Many donors are active now a days in assisting low-income countries in higher education. For example, under the Development Partnership in Higher Education (DELPHE) programme, the DFID has designed a new programme for cooperation between universities in Commonwealth countries to address issues like poverty in low-income countries. Pakistan would top the list of 140 countries that compete for Fulbright scholarships. Pakistan Higher Education Commission is also active in sending Pakistanis abroad to improve education. All these programmes are primarily in the public sector. They can contribute directly in poverty alleviation by providing

financial assistance to students from non-rich families to be part of foreign education system. Malaysia has a good experience of financing the poor endogenous group for tertiary education within the country, probably as well as abroad. In this regard, the pertinent question is how to give the students from non-rich families a chance for higher education through these public sector programmes?

The other relevant issue is what is the impact of changing nature of overseas students flow on the incentives to build up good local educational institutions in the developing countries? This changing nature of flow with the preference of multinational companies in recruiting graduates of universities located in USA, UK or European countries may have serious negative implications for building good local institutions. Building of good local institutions is crucial to provide the skilled workers at a large scale to meet the demand of local industry.

The paper has particularly noted the success of China in attracting its citizens back in two ways; first, substantial resources were devoted to promoting technical and business exchanges involving overseas Chinese students. Secondly, programmes were initiated to encourage ex-students to return, to use and profit from their entrepreneurship. Pakistan has also been successful in attracting through higher wages several PhDs to teach in the local universities. What is the implication of these types of incentives for the local faculty and poverty alleviation?

Finally, a country like Pakistan, which wants to be an industrialised country, has a population with low literacy, low skill level and persistently large gender gaps in education. The MDG target is primarily towards achieving universal primary education and literacy, which are crucial for any progress in future. The issue is with limited available public resources, how a balance between elementary and tertiary education within the country as well as abroad can be maintained? In short, a comprehensive approach can explain better the relationship between education abroad and poverty alleviation at home.

G. M. Arif

Asian Development Bank,
Islamabad.